

CLAIMS

1. A rotary disc atomizer, comprising a disc having an axis and rotatable about said axis, said disc also having two opposite surfaces as considered in an axial direction, and a peripheral edge, said disc having a plurality of throughgoing openings so that when a liquid is supplied to one of said surfaces and flows toward the edge and then droplets are sprayed, the liquid also flows through said throughgoing holes to another of said surfaces so as to also flow radially outwardly on said other surface and form droplets thrown from said edge in a region of said other surface.

2. A rotary disc as defined in claim 1, wherein said throughgoing holes are arranged on a circle having a predetermined radius.

3. A rotary disc as defined in claim 2, wherein said throughgoing holes are circular.

4. A rotary disc as defined in claim 1, wherein said throughgoing holes are slot shaped and extending substantially in a direction from said center toward said peripheral edge.

5. A rotary disc as defined in claim 4, wherein slot-shaped holes are substantially curved.

6. A rotary disc as defined in claim 5, wherein each of said slot-shaped holes is inclined relative to a corresponding radius in a direction corresponding to a direction of rotation of said disc.

7. A rotary disc as defined in claim 1, wherein said disc has a T-shaped cross-section with a central disc-shaped body and a peripheral flange extending in two opposite axial directions from said body.

8. A rotary disc as defined in claim 7, wherein a transition between a corresponding one of said projections and said body of said disc is curved.

9. A rotary disc as defined in claim 7, wherein one of said projections at a side of a liquid supply is shorter than another of said projections.

10. A rotary disc as defined in claim 1, wherein said body of said disc is substantially flat.

11. A rotary disc as defined in claim 1, wherein said body of said disc is substantially curved.

12. A rotary disc as defined in claim 1; and further comprising at least one second such disc, said discs being arranged at an axial distance from one another.

13. A rotary disc as defined in claim 12, wherein said discs have identical diameters.

14. A rotary disc as defined in claim 12, wherein said discs have different diameters.

15. A rotary disc as defined in claim 12; and further comprising a shaft on which said discs are mounted, said shaft being hollow and having a plurality of throughgoing openings extending from its hollow interior to its exterior.

16. A rotary disc as defined in claim 15, wherein said shaft is substantially cylindrical.

17. A rotary disc as defined in claim 15, wherein said shaft has a conical inner space.

18. A rotary disc as defined in claim 1; and further comprising a fan arranged coaxially with said disc and operative for blowing air substantially onto the droplets which leave the peripheral edge of said disc so as to direct the droplets in a predetermined direction.